

RECEIVED
LIBRARY
JAN 10 1936

NOTICE TO READERS

THE INTERNATIONAL RAILWAY CONGRESS ASSOCIATION

MONTHLY BULLETIN

OF THE

INTERNATIONAL RAILWAY CONGRESS ASSOCIATION

[385. (05)]

VOL. XVII. — 1935.

NOTICE TO READERS

LIST OF ABBREVIATIONS OF MEASURES, ETC., USED IN THE *BULLETIN*

Kilometre	km.
Metre	m.
Centimetre	cm.
Square kilometre	km ² .
Square metre	m ² .
Square centimetre	cm ² .
Hectare	ha.
Are	a.
Centiare	ca.
Cubic metre	m ³ .
Cubic centimetre	cm ³ .
Stere	st.
Hectolitre	hl.
Litre	l.
Centilitre	cl.
Degree	°
Minute	'
Second	"
Tonne (Metric)	t.
Ton (English).	ton.
Hundredweight	cwt.
Kilogramme	kgr.
Gramme	gr.
Centigramme	cgr.

Hour	h.
Minute	m.
Second	s.
Kilogrammetre	Kg.-M.
Kilowatt	kw.
Kilowatt-hour	kw.-h.
Watt	w.
Horse power	H. P.
Per cent	%
Per thousand	‰
Tonne-kilometre	tkm.
Passenger-kilometre	p.-km.
Train-kilometre	tr.-km.
Franc	fr.
Centime	c.
Lire	L.
Centesimo	c.
Pound sterling	£.
Shilling	sh.
Penny	d.
Dollar	\$.
Cent	ct.
Reichsmark.	Rm.
Pfennig	pf.

CONTENTS

OF THE 17th YEAR OF THE ENGLISH EDITION.

No. 1. — January 1935.

	PAGES.	NUMBERS of the decimal classification.
I. Competition by roads, waterways and airways. (Spain, British India, French Indo-China and French West Africa)	1	656
II. Rail motor cars from the point of view of their construction. — A. <i>Types of engines. Forms of transmissions. Running gear. Brakes.</i> Report covering the countries outside the European Continent, by E. WANAMAKER	7	621. 43
III. Austrian Federal Railways 2-8-4 express locomotives (classes 114 and 214), by J. NEBLINGER	68	621. 132.3 (.436)
IV. Rolling stock improvements made by the French Main-Line Railways since the war	77	621. 13 (.44), 621. 335 (.44) & 625. 2 (.44)
V. Austrian Federal Railways Workshops Department reorganisation and development, by F. STRAUSS	112	621. 138.5 (.436), & 625. 26 (.436)
VI. The heaviest tank locomotive in the world, by F. S. DORTMUND	121	621. 132.3 (.492) & 621. 132.6 (.492)
VII. MISCELLANEOUS INFORMATION :		
1. High-speed possibilities with steam locomotives (100 m. p. h. reached on the London and North Eastern Railway)	125	656. 222.1 (.42)
2. P 2 class 2-8-2 type express passenger locomotive No. 2002, « Earl Marischal », London and North Eastern Railway	129	621. 132.3 (.42)
VIII. NEW BOOKS AND PUBLICATIONS :		
<i>Wirtschaftsführung und Finanzwesen der Deutschen Reichsbahn</i> (The economic and financial management of the Reichsbahn). — Published by the GENERAL MANAGEMENT of the DEUTSCHE REICHSBAHN (German State Railway Company)	132	385. 1 (.43)
IX. MONTHLY BIBLIOGRAPHY OF RAILWAYS	1	...

No. 2. — February 1935.

I. Competition by roads, waterways and airways (Czechoslovakia and Algeria).	135	656
II. Note on train speeds, by Lionel WIENER. — Part II (<i>continued</i>). — Train speeds and services in different countries: Belgium	141	656. 222.1
III. The angles diagram method applied to repegging existing curves and to new lines with long transition curves, by Dr.-Ing. G. SCHRAMM	222	625. 113
V. Locomotive crank axles, by F. L. BAXTER	257	621. 134.1
V. MONTHLY BIBLIOGRAPHY OF RAILWAYS	13	...

No. 3. — March 1935.

	PAGES.	NUMBERS of the decimal classification.
I. Competition by roads, waterways and airways (France, Argentina, British India, French Indo-China and Portugal [Mozambique Colony])	267	656
II. Note on train speeds, by Lionel WIENER. — Part II (<i>continued</i>). — Train speeds and services in different countries: Holland	275	656. 222.1
III. Rails broken and damaged in service. Present state of the question and improvements required, by J. MERKLEN and E. VALLOT	305	625. 143.3
IV. Strengthening railway bridges by welding, by Otto BONDY	321	621. 392 & 624
V. Railway electrification in 1934.	329	621. 33 (∞)
VI. Centralized traffic control installed on the Alton Railroad	335	656. 255 (.73)
VII. Automatic train control on the German State Railways. Extensive installations of the inductive system	339	656. 254. (.43)
VIII. RECENT DEVELOPMENTS IN RAILWAY PRACTICE :		
Increasing the capacity of a suburban railway, by Ad. M. Hug	345	656. 222.4 (.45)
IX. MISCELLANEOUS INFORMATION :		
1. New 2-10-0 goods locomotives for the German State Railways	350	621. 132.5 (.43)
2. New three-cylinder 4-8-2 express locomotive, Czechoslovakian State Railways	351	621. 132 3 (.437)
3. Three-cylinder simple-expansion 2-8-2 tank locomotives for suburban trains, Est Railway, France	353	621. 132.6 (.44)
X. MONTHLY BIBLIOGRAPHY OF RAILWAYS	29	...
 No. 4. — April 1935		
I. Competition by roads, waterways and airways (Germany)	357	656
II. The world crisis railways: Effects of the crisis on railway working and measures taken to lessen these effects, etc. Report covering Secondary Railways in Countries of Southern Europe and their Colonies, by Messrs. E. LA VALLE and E. MELLINI	365	385. 1 & 656
III. Note on train speeds, by Lionel WIENER. — Part II (<i>continued</i>). — Train speeds and services in different countries. VI: Italy	385	656. 222.1
IV. Occupation diagrams to facilitate the intensive use of platform roads in passenger stations, by R. DEVOOGHT	426	656. 21 (01)
V. The hunting of railway vehicles, by C. LAFFITTE-MARTINEZ	443	625. 2 (01)
VI. Transmissions for diesel locomotives and railcars. Recent developments in Vulcan-Sinclair couplings for traction applications, by STUART MIALI	450	621. 43
VII. Mechanical transmissions for railcars (The S.L.M.-Winterthur system applied to French vehicles)	456	621. 43
VIII. Direct-drive diesel locomotives, by G. DELANGHE	460	621. 43
IX. New marshalling yard near Basle, Swiss Federal Railways	469	656. 212.5 (.494)

No. 4. — April 1935 (Continued).

	PAGES.	NUMBERS of the decimal classification.
X. MISCELLANEOUS INFORMATION :		
Welded coach construction on the Chicago, Milwaukee, St Paul and Pacific Railroad	473	621. 392 (.73) & 625. 232 (.73)
XI. NEW BOOKS AND PUBLICATIONS :		
Handbook for electric welders, by J. H. PATERSON	476	621. 392
Die Technik und Wirtschaft der Hygiene im Tierversand bei der Deutschen Reichsbahn (<i>The technique and economics of hygiene in transporting animals on the German State Railways</i>), by Dr.-Ing. Kurth WALTER	476	625. 248 (.43) & 656. 213 (.43)
Verkehrseinheit und Verkehrspolitik (<i>Unity in Transport and Transport Policy</i>). — Note presented to the 4th Annual Study Conference of the German State Railway Company, by Dr.-Ing. Prof Carl PIRATH	477	656 (02)
Modern Traction for Industrial and Agricultural Railways. — Published by the LOCOMOTIVE PUBLISHING Co. Ltd.	477	621. 132.8 & 621. 43
La manutention mécanique (<i>Mechanical handling</i>), by Marcel LEGRAS	478	621. 8
Reichsautobahnen in Staat, Wirtschaft und Recht (<i>The State Motor Roads Company considered from the point of view of its relations with the State, and from the economic and legal standpoints</i>), by Dr.-Jur. Klaus LENGEMANN	479	656. 1 (.43)
XII. MONTHLY BIBLIOGRAPHY OF RAILWAYS	43	...

No. 5. — May 1935.

I. Competition by roads, waterways and airways (Great Britain)	481	656
II. Note on train speeds, by Lionel WIENER. — Part II (<i>continued</i>). — Train speeds and services in different countries. — VII: Austria, and VIII: Hungary	493	656. 222.1
III. A comparative study of motor transport regulations, by Vladimir IBL	542	656. (.4)
IV. The new Bologna-Florence « Direttissima line »	557	625. 1 (.45)
V. Results of recent steam locomotive tests, by Dr.-Ing. H. NORDMANN	575	621. 134.3
VI. Ground detector for A. C. track circuits on electrified lines, by Ch. F. HOWE	592	621. 33 & 656. 256
VII. Co-ordinated fast-freight handling system developed	597	656. 225 (.73) & 656. 261 (.73)
III. RECENTS DEVELOPMENTS IN RAILWAY PRACTICE :		
New first-class electric restaurant cars for the London and Nord Eastern Railway Company	601	625. 232 (.42)
IX. MISCELLANEOUS INFORMATION :		
Welded steel hopper wagons	604	625. 245 (.492)
X. NEW BOOKS AND PUBLICATIONS :		
Organisation und Durchführung des Betriebsdienstes und Verkehrsdienstes bei der Deutschen Reichsbahn (<i>Organisation and working of the German State Railways</i>), by Dr.-Ing. LEIBBRAND and Dr.-Jur. H. DOMSCH	606	656. 2 (.43)
Les concessions de chemins de fer en droit suisse (<i>Railway Concessions according to Swiss law</i>), by J. HAENNI	606	385. 12. (.494)
XI. MONTHLY BIBLIOGRAPHY OF RAILWAYS.	57	...

No. 6. — June 1935.

	PAGES.	NUMBERS of the decimal classification.
I. Competition by roads, waterways and airways (France, Italy, Algeria, British India and French Indo-China)	609	656
II. Rail motor cars from the point of view of their construction: B. — <i>Under-frame and body — Heating and ventilation — Auxiliary apparatus — Fire protection.</i> — Report (Countries of the European Continent), by L. DUMAS and J. LÉVY	616	621. 43
III. Rail motor cars from the point of view of their construction: B. — I. <i>Additional information and data brought up to date on the points already dealt with in part A (Types of engines, Forms of transmissions, Running gear, Brakes) — and II: Body design — Lighting, heating and ventilation — Sundry apparatus and fire prevention — Speed characteristics and carrying capacity.</i> — Report (Countries outside the European Continent), by E. WANAMAKER	657	621. 43
IV. Ticket printing machines in use at the booking office at Brussels (Nord) Station, by A. DEPREZ	729	656. 211.5 (.493)
V. Increasing the efficiency of express locomotives, Eastern Railways of France	742	621. 132.3 (.44)
VI. The Dutch diesel train failures	746	621. 335 (.492) & 621. 43 (.492)
VII. Automatic interlocking on the Brooklyn-Manhattan Transit, by A. A. ROBERTS	752	656. 256 (.73) & 656. 258 (.73)
VIII. RECENT DEVELOPMENTS IN RAILWAY PRACTICE: New 4-cylinder simple expansion 4-6-2 express locomotives, Belgian National Railways Company	758	621. 132.3 (.493)
IX. MISCELLANEOUS INFORMATION: New French superheaters. Latest type of Houlet annular superheater	760	621. 134.3
X. NEW BOOKS AND PUBLICATIONS: Das Bogenläufige Eisenbahnfahrzeug (The railway vehicle and its ability to negotiate curves), by Roman LIECHTY	763	625. 215
The Container, Bulletin of the International Container Bureau, published under the auspices of the INTERNATIONAL CHAMBER OF COMMERCE	764	656. 225
XI. MONTHLY BIBLIOGRAPHY OF RAILWAYS	73	...

No. 7. — July 1935.

I. Competition by roads, waterways and airways (France and French Indo-China)	765	656
The world crisis and railways: Effects of the crisis on railway working and measures taken to lessen these effects, etc.:		
II. Second report, covering main line railways, except those affiliated to the International Railway Union (U. I. C.), by Mr. ASHTON DAVIES	771	385. 1 & 656

No. 7. — July 1935 (Continued).

	PAGES.	NUMBERS of the decimal classification.
III. Second report, covering countries of Southern Europe and their Colonies, by E. LAVALLE and E. MELLINI	791	385. 1 & 656
IV. A contribution to the comparative study of the different types of electric transmission used on diesel-electric railcars, by E. HENNIG	797	621. 43
V. Note on train speeds, by LIONEL WIENER. — Part II (<i>continued</i>). — Train speeds and services in the different countries : IX. Switzerland (<i>to be continued</i>)	817	656. 222.1
VI. Is the steam locomotive out of date ? by H. NORDMANN	857	621. 131
VII. RECENT DEVELOPMENTS IN RAILWAY PRACTICE : Welded coal wagons for the London and North Eastern Railway Company	879	625. 242 (.42)
VIII. NEW BOOKS AND PUBLICATIONS : Die Einheitslokomotiven der Deutschen Reichsbahn im Bild (Reichsbahn standard locomotives illustrated), 4th edition, by Hermann MAEY	881	621. 132.1 (.43)
American Railway Signaling Principles and Practices. — Chapter XV : Automatic block systems, by the AMERICAN ASSOCIATION OF RAILROADS, SIGNAL SECTION	881	656. 256.3 (.73)
Neuzeitliche Organisation im Eisenbahngüterverkehr. Abrechnung — Kontrolle — Statistik (<i>Up-to-date organisation in railway goods traffic. Accountancy — Control — Statistics</i>), by P. RIEDEL	882	651 & 656. 237
El Problema de las detasas. Las reclamaciones por excesos de portes y las juntas de detasas (<i>The problem of rate reductions. Claims against high rates, and the Rates Committees</i>), by E. D'OCÓN CORTES	883	656. 235 (.460) & 656. 24 (.460)
Les Grands Réseaux de Chemins de fer français, année 1934 (<i>The French Main Line Railways, 1934</i>), by R. GODFERNAUX	884	313 : 385 (.44) & 385. 113 (.44)
Kommentar zur Eisenbahnbau und Betriebsordnung vom 17. Juli 1928 (<i>Commentary on the Rules for the construction and operation of rail- ways</i>). — 4th edition, revised and enlarged, by F. BESSER	885	625. 1 (.43) & 656. 2 (.43)
IX. MONTHLY BIBLIOGRAPHY OF RAILWAYS	87	...

No 8 — August 1935.

Rail motor cars from the point of view of their construction :

I. Complete revised Report (<i>Countries of the European Continent</i>), by L. DUMAS and J. LÉVY	887	621. 43
Special Report, by L. DUMAS	1075	621. 43
II. ENLARGED MEETING OF THE PERMANENT COMMISSION (4-6 July, 1935) : Summary of Sectional Proceedings : QUESTION I : Rail motor cars from the point of view of their construction	1089	621. 43

No. 9. — September 1935.

The World Crisis and Railways, and the effects of the crisis on railway working; measures taken to lessen the effects of the crisis, etc. :

I. Second report (Main-line railways in countries affiliated to the International Railway Union), by Dr. COTTIER, and Herr VON BECK

PAGES.	NUMBERS of the decimal classification.
--------	--

1105	385.1 & 656
------	-------------

II. Special report, by Herr VON BECK

1147	385.1 & 656
------	-------------

ENLARGED MEETING OF THE PERMANENT COMMISSION (4-6 July, 1935) :

III. Summary of Sectional Proceedings :

QUESTION II: The World Crisis and Railways

1158	385.1 & 656
------	-------------

IV. Plenary Meeting held on the 6th July 1935 : Proceedings

1165	385.1, 621.43 & 656
------	---------------------

APPENDIX : Final summaries.

Question I: Rail motor cars from the point of view of their construction

1173	...
------	-----

Question II: The World Crisis and Railways

1176	...
------	-----

V. Official information issued by the Permanent Commission of the International Railway Congress Association :

Meetings held by the Permanent Commission in Brussels (4-6 July, 1935) .

1177	385.(06.111
------	-------------

Appendix 1: List of Members and their Assistants, who attended the Meetings

1181	...
------	-----

Appendix 2: List of questions selected for the Agenda of the 13th Session

1183	...
------	-----

VI. Experimental determination of the shrinkage stresses in butt-welded joints, by Dr.-Ing. G. BIERETT

1185	621.392 & 665.882
------	-------------------

VII. NEW BOOKS AND PUBLICATIONS :

Diesel locomotives and railcars, by Brian REED

1199	621.43
------	--------

Recueil des spécifications techniques et cahiers des charges unifiés des Grands Réseaux de chemins de fer français (The French Main-Line Railways' Standard Specification. New edition)

1200	351.712 (.44)
------	---------------

Die Entwicklung der Schienenstossschweissung und das Studium der geschweissten Schienenstossverbindungen (The development of rail joint welding and the study of welded joints), by D. CSILLERY

1200	621.392 & 625.143.4
------	---------------------

VIII. MONTHLY BIBLIOGRAPHY OF RAILWAYS

101	...
-----	-----

No. 10 — October 1935.

I. Note on train speeds, by Lionel WIENER. — Part II. Train speeds and services in different countries. — IX: Switzerland (concluded)

1201	656.222.1
------	-----------

II. Mechanisation of the control of the fuel used and the distance run by locomotives. The « Rona » locomotive meter, by N. M. MOTCHAROFF and A. S. SOKOLOFF

1225	621.133.1
------	-----------

III. New turbine-driven 4-6-2 express locomotive, London Midland & Scottish Railway

1239	621.132.8
------	-----------

IV. Stress distribution in aluminium connecting rods, by R. L. TEMPLIN

1252	62.(01, 621.134.1 & 669
------	-------------------------

No. 10. — October 1935 (Continued).

	PAGES.	NUMBERS of the decimal classification.
V. Southern Railway electrification to Hastings (England)	1261	621. 33 (.42)
VI. The suspension of high-speed self-driven and electric railcars, by Ad. M. HUG	1275	625. 213
VII. The Deutsche Reichsbahn railcars with self-contained power plant, by Herr BREUER	1278	621. 43 (.43)
VIII. MISCELLANEOUS INFORMATION :		
1. The crank axles used on the Paris-Lyons-Mediterranean Company's 4-8-2 class A locomotives, by Mr. CHAN	1283	621. 134.1 (.44)
2. Automatic block with light signals, installed between Caen and Cher- bourg, by C. CHOUQUET	1286	656. 256.3 (.44)
IX. NEW BOOKS AND PUBLICATIONS :		
The Universal Directory of Railway Officials and Railway Year Book, 1935-1936	1290	385. (02)
Amerikanische Erfinder (American inventors: Morse, Bell, Edison), by E. EICHENBERGER	1291	608
Die Neuordnung des Eisenbahnswesens und der Kraftwagen Wettbewerb in Frankreich (The new railway working conditions and road motor compe- tition in France), by W. HAMACHER	1291	656. (.44)
Locomotives à grande vitesse à bogie et 4 essieux accouplés compound à 4 cylindres à large circuit de vapeur, haute surchauffe et distribution par soupapes provenant de la transformation des locomotives « Pacific » à roues motrices de 1.85 m. de diamètre, série 4501 à 4570 de la Compa- gnie d'Orléans (High-speed 4-8-0 four-cylinder compound locomotives with large-section steam passages, high superheat, and poppet valve gear, rebuilt from the Orléans Company's « Pacific » type locomotives with 6 ft. 13/16 in. diameter driving wheels, numbers 4501 to 4570, by A. CHAPELON	1292	621. 132.3 (.44)
The mechanics of a locomotive on curved track, by S. R. M. PORTER	1293	621. 135.4 & 625. 215
X. OFFICIAL INFORMATION ISSUED BY THE PERMANENT COMMISSION OF THE INTERNATIONAL RAILWAY CONGRESS ASSOCIATION :		
List of members of the Permanent Commission (4th July 1935)	1294	385. (06.111)
XI. MONTHLY BIBLIOGRAPHY OF RAILWAYS	125	...
No. 11. — November 1935.		
I. The « Silver Jubilee » train, London and North Eastern Railway, by O. BULLEID	1299	621. 132.3 (.42) & 625. 232 (.42)
II. Competition by roads, waterways and airways (continuation): France and Africa (Kenya and Uganda)	1326	656
III. Statistics and the economical working of railways. An investigation into the maintenance of rolling stock, by Dr. Fr. LANDSBERG	1332	313.625.2, 621. 138.5 & 625. 26
IV. Pennsylvania opens new passenger station at Newark, N. J.	1353	656. 211 (.73) & 725. 31 (.73)

No 11 — November 1935 (Continued).

	PAGES.	NUMBERS of the decimal classification.
V. Locomotive axle failures and wheel-press fits, by T. V. BUCKWALTER and P. C. PATERSON	1367	621. 135.2
VI. High-pressure lubrication for journal bearings, by G. WELTER	1375	621. 135.2 & 625. 214
VII. Fast running without derailment, by Dr.-Ing. BÄSELER	1378	61. 135 4. 625. 14 (01 625. 215
VIII. The Trilok hydraulic transmission.	1383	621. 43 (.43) & 621. 8 (.43)
IX. Street crossing protection on the Northern Pacific	1385	625. 162 (.73) & 656. 259 (.73)
X. MISCELLANEOUS INFORMATION :		
1. The London Midland and Scottish Railway turbine locomotive. Details of the roller bearing axleboxes	1393	621. 132.8 (.42) & 621. 135 2 (.42)
2. Atlantic type streamlined locomotives, Chicago, Milwaukee, St. Paul & Pacific Railroad	1395	621. 132.3 (.73) & 621. 132.8 (.73)
3. Air preheater for locomotive fireboxes	1397	621. 133.2 (.73)
X. MONTHLY BIBLIOGRAPHY OF RAILWAYS	143	...

No. 12. — December 1935

I. Apparatus for repeating and recording signal indications in locomotive cabs and railcar driving compartments, by A. MASCINI and G. MINUCCIANI	1399	656. 254 (.45)
II. New German streamlined 4-6-4 type locomotives	1437	621. 132.3 (.43) & 621. 132.8 (.43)
III. Diesel fuels and their selection, by H. N. BASSETT	1448	621. 43 & 662
IV. Statistics of rail breakages, 1933-1934 (Part I)	1455	313 : 625. 143.3
V. MISCELLANEOUS INFORMATION :		
1. Present tendencies in electric locomotive construction	1487	621. 335
2. Fuel consumption on Austrian railways, by F. STRAUSS	1489	621. 133.1 (.436)
3. Water-softening plant on the London & North Eastern Railway. New installations	1492	621. 133.7 42
VI. NEW BOOKS AND PUBLICATIONS :		
Leitfaden für den Dampflokomotiv Dienst (<i>Manual for the steam locomotive staff</i>), by L. NIEDERSTRASSER	1494	621. 13 (02 & 621. 137 (02
VII. OBITUARY : G. Philippe	1495	385. (092
VIII. MONTHLY BIBLIOGRAPHY OF RAILWAYS	163	...
IX. ANALYTIC TABLE OF ARTICLES arranged according to the decimal classification (1935)	1 to 11	...
X. CONTENTS OF THE 17TH YEAR of the English edition	1 to VIII	...